

Rijeka Medical School: Development of Higher Education and Medicine in Rijeka

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Introduction

The founding of the School of Medicine, or the Faculty of Medicine, as it is officially called, in Rijeka in 1955, was a milestone in the overall development of education, scholarship and medicine in this city, far transcending any strictly local limits. Indeed, School of Medicine is the oldest and largest member of the University of Rijeka.

Academic History of Rijeka

The beginnings of Rijeka University go as far back as 1633, when a charter was issued to the Jesuit Collegium in Rijeka in which King Ferdinand II granted legal rights to the Collegium, Seminary and Church in Rijeka, as well as the ownership of the townships and land of Kastav, Mošćenice and Veprinac (1). The character of the charter and the rights it conferred to the program of studies and the students virtually placed the Collegium on an equal footing with the Academies and Universities in Graz, Vienna and other European cities. Hence, this may be considered the legal beginning of higher education in Rijeka.

Ferdinand II also assigned court privileges to the Collegium, denoting its academic freedom which was one of the hallmarks of European Universities at that time. The Collegium thus became a specially protected institution over which the ordinary civic courts had no jurisdiction. Legal power was entrusted to the Rector of the

Collegium who was responsible directly to the King. This privilege was granted in response to a petition sent in 1722 by councilors, nobilities and citizens of Rijeka to the Government in Graz asking for permission to found a study of Philosophy along with that of Theology. It was pointed out that not only Rijeka, but also the entire Croatian littoral and its islands would profit from it. The city was ready to finance the new Faculty which was to be associated with the Jesuit Collegium. On June 1, 1724, Emperor Charles IV granted the Rector of the Jesuit Collegium in Rijeka permission to found the "Study of philosophy and moral theology". The Faculty of Philosophy started classes in 1728, and 28 students enrolled in the first four-year course of studies. This course of studies was organized separately from the study of Theology, although both were governed by the Rector of the Collegium as "Praefectus scholis altioribus" (2). The number of students changed little throughout the years. There were 42 philosophy students in 1728, and 45 of them in 1732; at the same time theology had 25 students. In 1734 the two programs had a total of 70 students.

The program of studies was based on "Ratio studiorum", the didactic-pedagogical and scholarly program of Jesuit Schools including courses in logic, mathematics, physics and metaphysics. Debates were an obligatory part of teaching process; they were to contribute to the logical presentation of arguments, active participation in the learning process, and encouragement of the spirit of inquiry. The debates were held weekly,

monthly, and on special occasions. Especially demanding were the debates of graduating philosophy students who were required to master all the material taught during the study course. They were public examinations, preceded by the writing of a thesis, and were attended by the educated general public. That the debates were very highly esteemed, can be seen in a representative document from 1747, recording the occasion on which Ivan Baptista Tranquilli (Tihčić) defended a thesis in general philosophy.

During the reign of Queen Maria Theresa, there was a period (1767-1776) of school reformation in Croatia, which also had a strong impact on the educational system in Rijeka (3). The Jesuit order was abolished in 1773, but the imperial decree stipulated that all the existing Jesuit schools in Croatia were to continue with education. Thus, the Collegium was transformed into the public Royal Academy, that performed its activities till 1780.

In that period, higher education in Rijeka was beset by crisis and began to disintegrate in spite of the protests of citizens and their efforts to keep it alive. In 1778, the Inspector General of the Schools in Croatia and Slavonia wrote an order demanding the abolition of the study of theology owing to the lack of funds. Shortly thereafter, the authorities of Rijeka were asked to abolish the study of philosophy too, for there was no reason to finance two parallel courses of study in Croatia, one in Rijeka and the other in Zagreb. The authorities of Rijeka proposed to participate in the cost of the study, but the offer had not been accepted at that time. Hopes were raised again in 1780 when the restoration of the study of philosophy was granted, but the circumstances did not permit it.

In 1780, Joseph II, Maria Theresa's son, became the ruler of Austria and other Habsburg lands. Generally, his intentions were good, but he never succeeded in anything for his benevolent despotism went too far too fast. To gain control over Austria's many subject nationalities, he abolished local governments and appointed his own officials over each province. The nobility resented being forced to pay taxes, and the Catholic Church too, had many grievances against him. He had abolished many monasteries, using their wealth to support public schools and hospitals.

School reform by the end of 18th century brought about a complete separation of Academies from Universities. Academies lost the right to confer doctoral degrees and were generally deprived of privileges granted in the 17th century. Thus, higher education in Rijeka was interrupted. However, the Rijeka Grammar School survived to the present day, helping to preserve the Croatian national and cultural identity in the Rijeka region. In spite of the fact that it had lost

the status of an institution of higher education, the Rijeka Grammar School transcended the scope of secondary education both in the social, political, educational and cultural significance (4).

Medical History of Rijeka

In an attempt to outline the principal events and personalities marking the continuity of medicine in Rijeka, first we have to mention the excavations of a Roman bath and parts of the city's sewage system in the eastern section of the old town, as well as surgical instruments dating from the Roman times, which are now kept in the Civic Museum. This indicates that the citizens of Rijeka possessed a developed sense of hygiene, and that they benefitted from the activity of surgeons, most probably military ones (5). We know rather little about the following centuries. Reliable evidence of the existence and activity of the medical profession emerges again in the 15th century.

First Physicians

Between 1436 and 1465 the city notary and chancellor Antonio de Mutina kept detailed note of civic regulations, various reports, contracts etc. His notebook known as "*Liber Civilium sive notificationum*" is an exhaustive chronicle (6,7). Particularly interesting is the record of the regulations concerning order and cleanliness (8), and its references to barbers and surgeons who practiced empirical medicine before the appearance of educated physicians in the city (9). The oldest known barber was Henrik from Zagreb (1437). Pavao Vidotić, a barber, practiced medicine in Rijeka for almost ten years. His kinsman Just and the barbers Martin and Matija are also occasionally mentioned. The first educated surgeons came from Venice. They were the "*magistri*" Jakov, Tomo and Petar. They are most frequently mentioned in the contracts they made with sick or wounded Rijeka citizens and with the inhabitants of the neighboring towns and villages. The City Statute of 1530 (10,11) offers an insight into certain aspects of public health, the obligations of surgeons, and the existence of the first hospital, "*St Mary*" Hospital, which developed from the Hospitium of Rijeka, known to have existed in the 15th century (12-16). In the 16th century the activity of the first educated physicians of Italian provenance is noted: Antonio Senato d'Ancona, Leonardo Ventusto, Camillo Flaccio and Francesco Lincinero (9,17). The physician Giuseppe Tranquilli was active up to 1656, when he was succeeded by Angelo Gationi, and some time later by Antonio Rastelli (14,15). The hospital of "*St Mary*" was later succeeded by the hospital of the "*Holy Spirit*", situated near the Cathedral. At the beginning of the

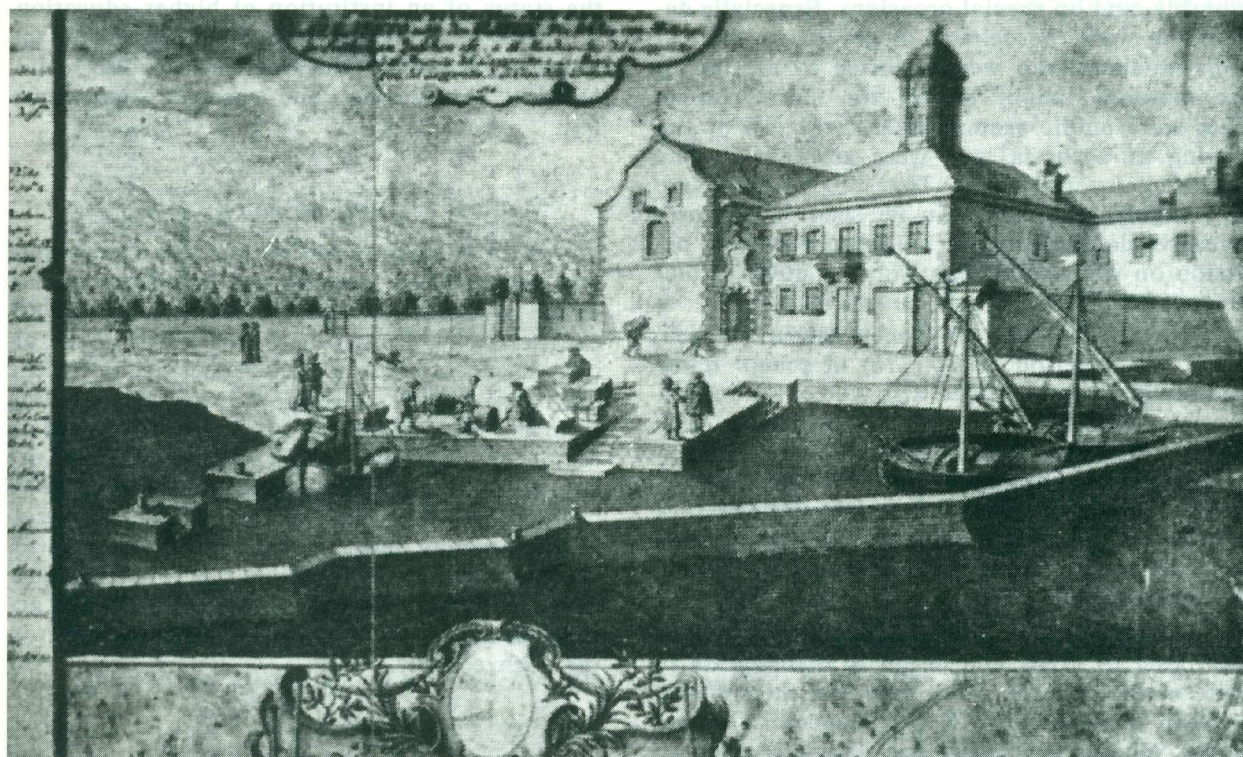


Figure 1. The old lazaret in the harbor of Mandrač (Graphic in Historical and Maritime Museum of Rijeka).

17th century the city had three pharmacies managed by qualified pharmacists: Bertossi, Cortiva and Zamarichi (14).

Rijeka Lazaret

After the disastrous plague epidemic in 1599, which caused the death of almost one third of the Rijeka population, plans were set down for the building of a lazaret. That kind of quarantine station proved its usefulness in some ports, safeguarding their population from contagious diseases coming from across the seas. The lazaret became particularly important after Rijeka was given the status of a free port in 1719. The construction of a modern lazaret began in the small harbor Mandrač in 1722 (Fig. 1). It was inaugurated in 1724 and remained active until 1833, when a new, larger one was opened in Martinšćica (12,18-20). The founding and activity of these lazarets must be viewed as an important factor in what we would call today preventive medicine and public health.

Saverio Graziano - the First Medical Scholar in the History of Rijeka

Saverio Graziano, a physician born in Barletta, Italy, in 1702, arrived in Rijeka in 1720-s. This exceptional physician devoted his life to Rijeka and to the health of its citizens. He was a brilliant and versatile man, and an exemplary practitioner who can also be considered the first

medical scholar in the history of Rijeka. He was a great organizer, a practitioner of forensic medicine, and obstetrician and gynecologist, infectologist and epidemiologist (23). His work "De usu mercurii" (24), in which he discusses the use of mercury in medical therapy, testifies to his versatility and originality, and places him among the medical scholars of his age. By supervising the work of lazaret, he became deeply involved in sailors' health problems. He laid the groundwork of maritime medicine in Rijeka (18).

As a pioneer practitioner in obstetrics, he also organized and supervised the work of midwives. His successor in obstetric practice, Jakob Cosmini, founded the first school for midwives in Rijeka in 1786. Taught in Croatian, this school marks the beginning of nursing education in Croatia (25,26).

After several smallpox and plague epidemics that struck Rijeka in the 18th century, there loomed in the environs a new epidemic, unknown till then. It was named morbus Scherlievo after the village Škrlevo, where it occurred. Graziano was the first physician to report on it. During the next seven decades the disease was studied not only by local physicians, but also by scholars all over Europe. After much discussion, it was concluded that it was a distinct form of endemic syphilis which spread by extragenital route (27).



Figure 2. Hospital of the „Holy Spirit“ in the end of 19th century.

Giovanni Battista Cambieri - Great Reformer of Hospital Practice in Rijeka

Towards the end of the 18th century (1797), the hospital received a new physician-in-chief, Giovanni Battista Cambieri, born in Pavia, Italy (Fig. 3). Appointed to this position at the age of 44, Cambieri devoted his life to the health of the people of Rijeka. He bequeathed all his property to Rijeka, and it was used for founding the "Fondazione Cambierina" (28,29).

As a result of Cambieri's insistence, the civic hospital was moved to a new locality in 1823, and remained there for the next 100 years (Fig. 2). After World War I, the hospital was transferred to the large building which had previously housed Military Naval Academy.

Under Cambieri's management the hospital of the "Holy Spirit" developed into a modern medical institution with a clearly designed trend towards specialization of wards and physicians (30). An important progress in this period was the partition of psychiatric and charity divisions into separate buildings. Indeed, the last years of the Enlightenment Age saw a dramatic change in the attitude of medicine toward mental diseases, the victims of which were until then treated in lazarets, often in inhuman conditions. The next step was the separation of medical patients from surgical ones, and a new ward was opened for syphilis patients (14).

Towards the Modern Age

During the course of the 19th century, medical practice was empirical, rational, or mystic-suggestive. However, by the end of the century, the romantic speculations of Natural Philosophy were replaced by mensurative and practical examination of nature. In Rijeka of that time, medicine was practiced by a number of physicians, the majority of whom were of Croatian origin: Fabris, Filler, Gelić, Giacich, Giustini, Manesteriotti, Pilepić, Rinaldi, Rubeša, Ožbolt. Healing was practiced by surgeons Lahainer and Moyses. Catti, Kovačić and Rigotti were Rijeka's pharmacists at the time (15).

This was the century when history, by a paradoxical contrast, became national in the various countries and universal in its expansion throughout the world.

The most significant response to the new era was the emergence of humanitarianism and the rapid extension of literacy among the middle classes. At this time, there arose at the hospital of Rijeka three memorable figures and pioneer clinicians: Antonio Felice Giacich, Giorgio Catti and Antonio Grossich. Each of these men made his own contribution to the development of clinical medicine and public health, and influenced profoundly scholarship, Rijeka's culture, art and political life.



Figure 3. J.B. Cambieri.

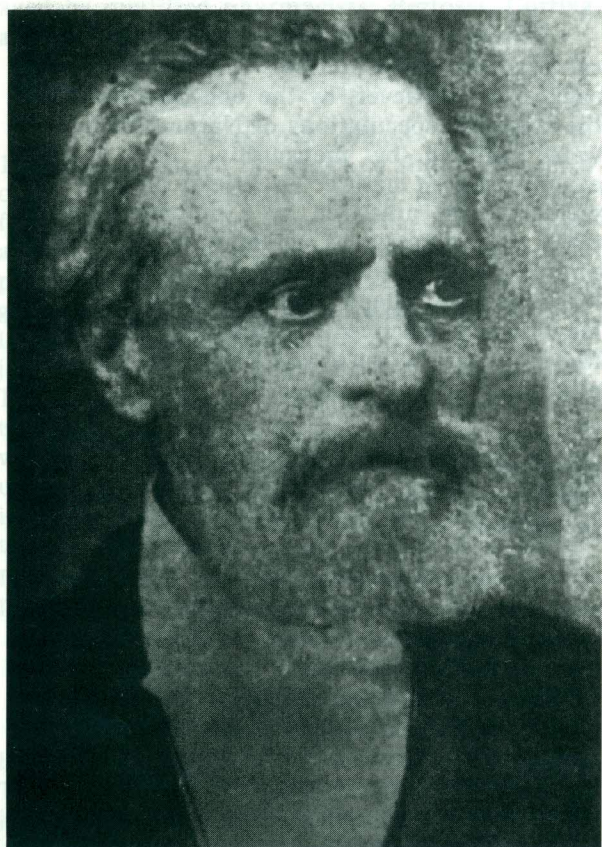


Figure 4. A.F. Giacich.

Giacich, Catti and Grossich - Physicians with International Acclaim

Antonio Felice Giacich

Antonio Felice Giacich (Lovran 1813 - Rijeka 1898) (Fig. 4) attended Grammar School in Rijeka and graduated from the Medical School of Padua, Italy in 1838 (31). In his dissertation, "De acu-pressore", he described the experiments done by a needle-endowed instrument used to press arteries in order to induce their dilatation in seeking therapeutic effects. He began his career as an intern at the hospital of the "Holy Spirit" in Rijeka, soon developed into a competent clinician and at a relatively early age became the physician-in-chief and director of the hospital. As a practitioner he came to know much about maritime medicine, and since 1852 taught at the Naval School of Rijeka. In 1855, he published the book "Lezioni mediche per i naviganti" (33). This was a collection of useful advice concerning the organization of sanitary conditions aboard ship. Also included were the directions for food and water preservation, and for maintenance of personal hygiene of sailors. Particularly useful were the instructions for emergency treatment of injured or suddenly diseased seamen. He was acquainted with the use of carbolic acid, and reasoned about the significance of microbes. Also deserving note are his "soffietti respiratorii", bellows provided with masks for giving artificial respiration. The value of this handbook can be judged by the fact that it soon became the official handbook used in all the Naval Schools and on all vessels of the Austrian-Hungarian Monarchy, and subsequently appeared in four revised editions (34). Being a keen observer and a most efficient organizer, Giacich contributed enormously to reducing casualties from cholera epidemics in Rijeka in 1849, 1855 and 1885. His study, "Sullo Skri-lievo", published in Padua in 1862, is a distinguished contribution to the effort of solving the riddle of the well-known endemic syphilis in Croatian littoral (35). In 1883, he published a treatise on the relationship between geography and childhood mortality and morbidity as compared with the pertinent data from other regions of the Monarchy and Europe. This certainly made him the initiator of child growth and development topic in this region (36). In addition, his name is frequently associated with the development of Opatija as a balneal center. Since he was born in Lovran, the climatic advantages of the Liburnian coast were well known to him. He retired in 1885, after almost fifty years of activity in medicine and public health.

Giorgio Catti

Giorgio Catti (Rijeka 1849 - Begunje 1923) (Fig. 5) was a disciple of the Croatian Grammar School of Rijeka. Having graduated from the

Medical School of Vienna, he came on the medical scene of Rijeka in 1879. It was the era in which medical practice grew to depend on science, and the image of the nineteenth century physician changed. The man's professional horizon expanded with widening social and political vistas, and Governments increasingly invoked the aid of physicians, stimulated them to think in new terms of social and political medicine. Such was the general tone present also in Rijeka at the time when Catti came from Vienna, where he had been working as an assistant at the Clinic for Lung and Throat Diseases. Upon returning to Rijeka, he was elected physician-in-chief at the civic hospital, and distinguished himself as an outstanding clinician and pioneer in otorhinolaryngology, a new specialty in Croatian medical practice (14,37). His passionate interest in ear, nose and throat diseases made him one of the leading lights in the professional field, and an eloquent voice in European medical journals. His particular concern was indirectoscopy, a diagnostic and therapeutic method. Yet, Catti's most valuable contribution to medical practice was his instrument for the removal of adenoid from nasopharynx (37-40). A great patriot, he bequeathed his valuable library to the Medical Faculty of Zagreb (14).

Antonio Grossich

Antonio Grossich (Draguč 1849 - Rijeka 1926) (Fig. 6) graduated in 1875, and specialized surgery in Vienna. Upon arrival in Rijeka, he became head of the surgical-gynecological department at the hospital. He was especially interested in abdominal surgery, but was also successful as a chest surgeon. He earned a place in the medical history for his practicing the use of tincture of iodine on wounds (41). As the spreading of infection in contaminated wounds was successfully stopped by this practice, he applied it as a preventive measure on intact skin before surgery. The results were startling, and he presented them at the International Medical Congress in Budapest in 1909 (42). Two years later he published the famous monograph on pre-operative skin sterilization with the tincture summarizing many positive and some negative experiences (43). Although some other surgeons had similar experience, the credit of first introducing the tincture of iodine as an antiseptic goes to Grossich because he was the first to publish his observation (29). Grossich's bibliography also includes work on hygiene (44), thalassic therapy (45), and health conditions in Rijeka (46). In addition, his activity was closely related to the founding of emergency service in Rijeka in 1882. He was a notable public personality and very active in politics. He stirred interest for mountaineering and hiking and contributed to their popularity in Rijeka (47).



Figure 5. G. Catti.



Figure 6. A. Grossich.

The Late 19th and Early 20th Century

Among many interesting physicians practicing medicine in Rijeka and Sušak during this time, were Drs. Ivan Kiseljak, the district physician in Sušak, and Franjo Kresnik, an excellent pediatrician and an internationally known constructor of violins.

By the end of the 19th and the beginning of the 20th century, medicine in Rijeka was greatly influenced by physicians and scholars of international reputation, such as Julius Glax and Theodore Billroth, who either worked for a time or used to come as tourists to Rijeka and Opatija. At that time, Opatija near Rijeka became an international tourist and balneal center whose regular guests were many celebrities including Emperor Franz Joseph I and his family, high Army and Navy officials, politicians, writers, musicians, architects, physicians and many others.

Rijeka School of Medicine

The Founding of Rijeka School of Medicine

The greatest supporters of founding a School of Medicine in Rijeka, an event which occurred on November 22, 1955, were Andrija Štampar, professor of public health, and Silvije Novak, professor of medicine, both from Zagreb School of Medicine. The first Dean of the School of Medicine in Rijeka was Silvije Novak. With the support of the Zagreb School of Medicine, and all the professional and administrative institutions in Rijeka, the Faculty succeeded in obtaining the representative buildings of the Brancetta Brothers Foundation for its pre-clinic Chairs and Administrative Offices (48).

Members of Rijeka School of Medicine

The educational, professional and scholarly base of Rijeka School of Medicine is comprised of all the Medical Institutions in Rijeka, the Special Clinical Orthopedic Hospital in Lovran, the Thalassotherapies in Opatija and Crikvenica, the Children's Hospital for Allergic Diseases (and its adults' ward) in Veli Lošinj, the Primary Health Centers in Labin, Pazin, and Poreč, the Medical Center in Pula, the Special Hospital for Rheumatic Diseases and Rehabilitation in Krapinske Toplice and the Special Hospital for Physical Medicine, Rehabilitation and Balneology in Stubičke Toplice.

Today, Rijeka School of Medicine is not only the most notable member of the University of Rijeka, but has also come to be the largest educational-scholarly institution in Croatia outside Zagreb.

Conclusion

The Medical Faculty in Rijeka, founded in 1955, is the oldest and largest member of Rijeka University. Its founding was a natural consequence of the historical, cultural and professional circumstances of life in this Croatian littoral city.

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References

- 1 Pandžić, M. Sveučilišta u Rijeci. Dometi 1973:1-2.
- 2 Klen D. Arhivska građa u samostanu franjevaca na Košljunu. Vjesnik Historijskog arhiva Rijeka i Pazin, s. XVIII, Rijeka, 1973.
- 3 Ekl V. Spomenici Sveučilišta u Rijeci. Rijeka: Sveučilište u Rijeci, 1974.
- 4 Kombol G. Kratki ljetopis gimnazije. Izvještaj gimnazije u Rijeci za škol. god. 1851/52.
- 5 Klen D. ed. Povijest Rijeke. Rijeka: Skupština Općine Rijeka, Izdavački centar Rijeka, 1988:63.
- 6 "Liber Civilium sive notificationum" de Antonio de Reno de Mutina 1436-1465. Historijski arhiv Rijeka, Sign. JU-1-I-1.
- 7 Zajčić M. Knjiga riječkog kancelara i notara Antuna de Reno de Mutina (1436-1465). Vjesn Drž Arh u Rijeci. I 1955-56;3:5-345; II 1959; 4:89-225; III 1959; 5:225-59.
- 8 Milović Đ. Sanitarno higijenski propisi Riječkog statuta iz 1530. Acta Hist Med Pharm Vet 1969;1-2:17-23.
- 9 Škrobonja A. Barbiri, kirurzi i liječnici u srednjovjekovnoj Rijeci. Acta Fac Med Flum 1991;16:47-58.
- 10 "Statum Terrae Fluminis" anno MDXXX. Historijski arhiv Rijeka. Sing JU 3-19.
- 11 Herkov Z. Statut grada Rijeke iz 1530. Zagreb: Naklani zavod Hrvatske, 1948.
- 12 Kobler G. Memorie per la storia della liburnica città di Fiume. Fiume: Ed. Mohovich, 1896.
- 13 Gigante S. Appunti sulle condizioni igieniche e sanitarie della Fiume d'altri tempi. Bulletino della Deputazione fiumana di storia patria 1912;2:48-82.
- 14 Korin N. Razvoj medicinske misli u Rijeci. Rijeka: Zavod za zaštitu zdravlja Rijeka, 1966.
- 15 Korin N. Vrbanić D. Povijest zdravstvene kulture na području Rijeke. Dometi 1985;4-5:53-62.
- 16 Škrobonja A. Social and medical circumstances in Rijeka during the 15th and 16th centuries (dissertation). In Croatian. Rijeka: School of Medicine, 1984:105.
- 17 Ostavština G. Kobler u Historijskom arhivu Rijeke.
- 18 Korin N. Ranarništvo i kirurgija u pomorstvu. Posebni otisak iz "pomorskog zbornika", knjiga 9, Rijeka 1971.
- 19 Matejčić R. Stari lazaret u ulici Borisa Kidriča - autonomni barokni kompleks. Naša Rijeka 1982;4:36.
- 20 Matejčić R. Lazaret sv. Franje u Martinšćici - svjedočanstvo slavne pomorske prošlosti. Naša Rijeka 1981;3:27.

- 21 Viezzoli G. Contributi alla storia di Fiume nel Settecento. *Rivista Fiume* 1932;10:165.
- 22 Matejčić R. Podaci za životopis riječkog liječnika K. Grazianija. *Medicina* 1966;3:249.
- 23 Quatro Manuscritti di Graziani. *Historijski arhiv Rijeka*. Busta 415. Sin. No. 1780.
- 24 Xaverii Graziani M.D. De usu mercurii tam externe quam i interne usurpati observationes medicopracticae cum animadversibus et ad calcem epicrasis.... *Viennae Austriae: Ex typographia Kaliwodiana*, 1755.
- 25 Basala V. Crteži u rukopisnom primaljskom priručniku dr Ivana Karobija iz 1795. *Acta Hist Med Pharm Vet* 1964;4:159-70.
- 26 Škrobonja A. Primaljska škola u Rijeci 1786. Početak sestrinskog školstva u Hrvatskoj. Izvještaj - posebno izdanje povodom 360. obljetnice osnutka gimnazije, prve srednje škole u Rijeci i 40. obljetnice osnutka srednje škole za medicinske sestre. *Rijeka:CUOZK "M.Lenac"*, 1987;79:80.
- 27 Grmek MD. *Hrvatsko medicinska bibliografija I: Knjige sv. I.: 1470-1475*. Zagreb: JAZU, 1955:19.
- 28 Matejčić R. Matejčić M. *Ars Esculapii*. Rijeka ICR, 1987.
- 29 *Historijski arhiv Rijeka*. Spisi Općine Rijeka. Magistrat, E 161/1880. Busta "Fondazione Cambierina" prijepis testamenta GB Cambieria od 2. siječnja 1835.
- 30 Matejčić R. Osnivanje riječke gradske bolnice Svetog Duha kao samostalne zdravstvene ustanove 1. siječnja 1880. *Acta hist med pharm vet* 1971;11:109-20.
- 31 Samani S. *Dizionario biografico Fiumano*. Venezia: Istituto Tipografico editoriale, 1975:62-64.
- 32 Giacich AF. De acu-pressore disertatio. Patavii, Typis Cartallier et Sicca, 1838.
- 33 Giacich AF. *Lezioni mediche per i naviganti*. Trieste: Tip. Lloyd Austriaco, 1885.
- 34 Mateljan N, Škrobonja A. AF Giacich i njegovo mjesto u razvoju pomorske medicine u našem krajevima. *Pomorska medicina V*, 1990;39:41-5.
- 35 Giacich AF. *Sullo Skrilievo*. Padova: Stab. di P. Prosperini, 1862.
- 36 Giacich AF. *L'allevamento e morbidita dei bambini. Ricordi popolari*. Fiume: Stabilimento Tipo-Litografico di E. Mohovich, 1883.
- 37 Manestar D, Matutinović T, Škrobonja A, Varljen F, Manestar M. The place of dr Juraj Catti in world medicine. *Acta Fac med Flum* 1990;15:57-63.
- 38 Catti G. Ueber Behandlung der adenoiden Vegetationen im Nasen-Rachenraume. *Monatsschrift fuer Ohrenheilkunde* 1879;13:1-2.
- 39 Catti G. Die Diagnose des Kehlkopfkrebsses. Moscou: Typo-litografie de la Societe I.N. Kouchnerov. Comptes-rendus du XII Congress international de medicine, Moscou about 1897.
- 40 Majer EH, Skopec M. History of otorinolaringology in Austria. *Wien-Muenchen: Verlag Christian Brandstätter*, 1985:65.
- 41 Grossich A. Eine neue Sterilisierungsmethode der Haut bei Operationen. *Zentralblatt fur Chirurgie* 1908;44.
- 42 Grossich A. Un nuovo metodo di disinfezione del campo operativo. Comunicazione fatta, al Congresso medico internazionale a Budapest, il giorno 30 Agosto 1909. *Fiume*, 1909.
- 43 Grossich A. Meine Praeparationsmethode des Operationsfelds mittels Jodtinktur. Berlin, Wien: Urban & Schwarzenberg, 1911.
- 44 Grossich A. *Trattatelo di igiene*. Fiume: Stabilimento Tipo-litografico di E. Mohovich, 1882.
- 45 Grossich A. Dell'aria di mare. Dei bagni e del mal di mare. Premesso un discorso sulla forza medicatrice della natura. Trieste: Tipografia editrice Morterra & Comp., 1885.
- 46 Grossich A. Relazione della Commissione sanitaria intorno alle condizioni sanitarie di Fiume. Fiume: Stabilimento Tipo-litografico di E. Mohovich, 1902.
- 47 Susmel E. Antonio Grossich nella vita del suo tempo (1849-1926). Milano-Roma: Fratelli Trevers, 1933.
- 48 Matejčić R, Matejčić M. Povijest zgrade zadužbine braće Branchetta. *Acta Fac med. Flum*. 1985;10;3-4:16124.

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